REMARKS

Claims 1-20 remain pending in the '596 application, of which claims 1, 6, 8, 12, 14, and 18 are independent. Claim 18 is amended to more specifically claim a software product as instruction sets. No new matter is added.

The following remarks attend to all issues presented in the Office Action dated October 06, 2006. Where used herein, numbered subtitles reflect the numbering of issues presented in the aforementioned the Office Action.

Paragraph [0001] of the specification is amended to include application numbers for incorporated applications. No new matter is added.

In paragraph 3 of the pending office action, the Examiner requests clarification of the terms 'partial specifier' and 'complete specifier'. A design element specifier is, for example, a description of a design element that is used for identifying design elements by type. The design element specifier is 'complete' when it indicates one design element, and 'partial' when it can indicate multiple design elements. A complete specifier names a design element, and is thus the name of a specific design element. A partial specifier is a 'regular expression' for a net name and describes applicable design element names. A 'regular expression' is a string of characters used to represent one or more target strings that satisfy the pattern described by the regular expression. See, for example, paragraph [0018] of the specification.

4. Claim Rejections – 35 U.S.C. § 102

Claims 1-20 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,826,732 (hereinafter, "Hunt"). We respectfully disagree.

First of all, in order to anticipate a claim, Hunt must teach every element of the claim and "the identical invention must be shown in as complete detail as contained in the ... claim." MPEP § 2131 citing *Verdegaal Bros. V. Union Oil Co. of California*, 814 F.2d 628, 2 USPQ2d 1051 (Fed. Cir. 1987) and *Richardson v. Suzuki Motor* Co., 868 F.2d 1226, 9 USPQ2d 1913 (Fed. Cir. 1989). However, Hunt fails to meet this requirement.

> Secondly, MPEP 707.07(d) states that "where a claim is refused for any reason relating to the merits thereof it should be 'rejected' and **the ground of rejection fully and clearly stated**..." (emphasis added). Additionally, MPEP 706.2(i) states that form paragraph 7.15 is to be used "with an explanation at the end of the paragraph". The Examiner has given no explanation of how Hunt allegedly anticipates the present invention. If the Examiner maintains these rejections, we accordingly ask for clarification in the manner dictated by the rules.

Despite the lack of arguments provided by the Examiner, we now show how Hunt fails to anticipate claims 1-20.

By way of background, the '596 Application teaches systems, methods and software products for analyzing design elements in a CAD tool design. Configuration commands are functions used to set physical and/or electrical characteristic (e.g., resistance) of design elements (e.g., a wire) within the design. Configuration commands are read from configuration files and configuration elements are generated therefrom. A sequence number, based upon the order of the configuration commands within the configuration file, is assigned to each generated configuration element. See for example, paragraph [0015] of the specification. Single copies of each configuration element are stored in computer memory by their association with design elements. Within computer memory, each configuration element is stored in association with one or more design elements of an E-CAD design; the configuration element being reused when another identical design element is encountered. Computer memory also stores design element specifiers and sequence numbers of the configuration element. The processing time required for analysis of the E-CAD design is reduced since the processor can find associated configuration elements with sequence numbers for a design element, including design element specifiers, without having to recalculate all applicable information and/or processing of the configuration commands for the configuration element. See, for example, paragraph [0020] of the speciation.

On the other hand, Hunt discloses a hardware system with an associated configuration database that stores a data structure defining a Dial instance and mapping between each of a plurality of possible latch input values of the Dial instance and a respective one of a corresponding plurality of latch output values. Hunt does not disclose a method for analyzing design elements in a CAD tool design. The plurality of output values control which of a plurality of different possible latch values is placed in a hardware latch to configure the hardware system. In response to receipt of a request specifying an input value for the Dial instance, the configuration database is accessed to determine an output value for the Dial instance based upon the mapping. *See* Hunt abstract. The configuration specification statements of Hunt specify a Dial that is used to configure one or more latches within a digital design. The Dial is a configuration entity that specifies values for latches, based upon an input to the Dial, thereby configuring the digital design. *See* Hunt col. 10, lines 15-35 and lines 49-56. The configuration statements of Hunt relate to configuration of the 'Dial' configuration entity, and do not relate to design elements of a digital design. The Dial of Hunt is not applied to a design element but is instead used in configuring the hardware system.

Accordingly, the configuration statements of Hunt do not include characteristics (e.g., capacitance, rise and fall times, etc.) of one or more design elements of the circuit design. The configuration statements of Hunt are compiled into a configuration database for use by downstream organizational groups. See Hunt col. 6, lines 45-50. We understand that the Dial of Hunt is a configuration concept that does not result in tangible design elements within the digital design. The output value determined by the Dial is loaded into the latch in the hardware system to set the hardware system into a desired configuration. See Hunt col. 3, lines 41-60. Thus, the configuration specification statements of Hunt cannot apply to design elements of a digital design. See also col. 10, lines 43-56 and col. 12, lines 24-30.

Furthermore, Hunt's Dial or signal identifier is being initiated in a hierarchical order and the Dial identifier for each signal is specified hierarchically. On the other hand, in the '596 Application, each configuration element is ordered with a sequence number indicating the order in which the configuration command appeared in the

configuration file. Clearly, the Dial of Hunt is not equivalent to the configuration element of the '596 Application.

Claim 1 recites a method for analyzing design elements in a CAD tool design including the steps of:

(a) for each configuration command in a configuration file:
(b) encoding information in the configuration command to generate a configuration element;
(c) ordering the configuration element with a sequence number indicating the order in which the configuration command appeared in the configuration file; and
(d) storing the configuration element in computer memory; and
(e) for each said design element of interest:
(f) applying each of the configuration elements stored in said computer memory to the design element of interest in an order indicated by the sequence number to analyze the design.

The invention of Hunt does not relate to analyzing design elements of an electronic design generated by a CAD tool. As disclosed in col. 6, lines 35-39 of Hunt, the Dial is used for configuring and controlling the setup of a digital system. Hunt also fails to disclose steps (a)-(f) of claim 1. For example, Hunt does not generate a configuration element by encoding information in the configuration command as recited by steps (a)-(b). Paragraph [0012] of the '597 Application specification for example teaches that a configuration element is an encoding of data comprising formatted information associated with a design. Hunt, on the other hand, permits a digital designer to specify configuration values of configuration latches that are utilized to configure a digital design for proper operation. See Hunt col. 3 lines 45-50. The configuration specification language of Hunt is associated with a configuration latch value and is not associated with analyzing design elements of a design as in the '596 Application.

Hunt does not disclose ordering the configuration element with a sequence number indicating the order in which the configuration command appeared in the

configuration file as recited by step (c). Teaching away from step (c), Hunt discloses that the signal identifier or Dial instances for each signal is specified hierarchically (e.g., FXU0.A0.SIG1 for signal 514a0) relative to the default scope of the associated design entity so that different signal instances having the same signal name are distinguishable. See Hunt col. 12 lines 55-60. Further, Hunt discloses that "each signal or Dial identification is constructed hierarchically from one or more fields." See Hunt col. 24, lines 2-4. The Dials in Hunt are thus hierarchically ordered which is different than the sequential order or the configuration elements of the '597 Application. The Dial of Hunt is not equivalent to a configuration element.

Hunt also fails to disclose storing configuration elements in computer memory as required by step (d). Instead, Hunt stores Dials in a configuration database and a configuration documentation file. Paragraph [0020] of the '596 Application specification for example teaches that computer memory stores single copies of configuration elements by their association with design element such that the particular configuration element can be reused when another identical design element is encounter. Storing configuration element associated with the design element along with design element specifiers and sequence numbers decreases the processing time since configuration elements may be found based on design element specifiers and sequence numbers without having to recalculate applicable information for each configuration element. That is, the configuration commands need not be repeatedly processed during analysis of the CAD tool design.

Steps (e) and (f) recite that, for each design element of interest, applying each of the configuration elements stored in the computer memory to the design element of interest in an order indicated by the sequence number to analyze the design. As noted above, Hunt does not disclose analyzing a design. More specifically, Hunt does not disclose applying each of the configuration elements to each of the design elements of interest. Therefore, Hunt cannot anticipate steps (e) and (f).

For at least these reasons, Hunt cannot anticipate claim 1. Reconsideration of claim 1 is respectfully requested.

Claims 2 – 5 depend from claim 1 and benefit from like argument. These claims also have additional features that patentably distinguish over Hunt. For example, claim 2 recites storing the configuration element in a first list if the configuration element is a partial specifier, storing the configuration element in a second list if the configuration element is a complete specifier, evaluating each partial specifier in the first list to determine if the evaluated partial specifier matches the design element of interest, retrieving the configuration element into a third list if the evaluated partial specifier matches the particular configuration element, and retrieving, into the third list, each complete specifier in the second list that matches the particular configuration element. Hunt makes no disclosure of storing configuration elements in a first, second or third list. Claim 3 recites discarding the third list from said computer memory after the configuration elements therein have been applied to the design element of interest. Hunt is silent about retrieving the configuration element into a third list and therefore cannot discard the third list.

For at least these reasons, Hunt cannot anticipate claims 2-5. Reconsideration of claims 2-5 is respectfully requested.

Claims 6 recites a method for analyzing design elements in a CAD tool design including the steps of:

(a) for each configuration command in a configuration file:
    (b) encoding information in the configuration command to generate a configuration element;
    (c) ordering the configuration element with a sequence number indicating the order in which the configuration command appeared in the configuration file;
    (d) storing the configuration element in a first list if the configuration element is a partial specifier; and
    (e) storing the configuration element in a second list if the configuration element is a complete specifier;
(f) for each said design element of interest:

(g) evaluating each partial specifier in the first list to determine if the evaluated partial specifier matches the design element of interest;

(h) retrieving the configuration element into a third list if the evaluated partial specifier matches the particular configuration element; and

(i) retrieving, into the third list, each complete specifier in the second list that matches the particular configuration element;

(j) applying each of the configuration elements in the third list to the design element of interest in an order indicated by the sequence number; and

(k) discarding the third list from said computer memory after the configuration elements therein have been applied to the design element of interest.

As argued above, Hunt does not disclose analyzing design elements in a CAD too design, does not creates lists of configuration elements based upon the type of specifier as recited by steps (d) and (e) and does not retrieve configuration elements from the first and/or second lists if the specifier of the configuration element matches the design element of interest as recited by steps (g)-(i). Hunt does not apply configuration elements to design elements of interest in an order indicated by the sequence number as recited by step (j), and since Hunt does not create a third list, Hunt cannot discard the third list as recited in step (k).

For at least these reasons, Hunt cannot anticipate claim 6. Reconsideration of claim 6 is respectfully requested.

Claim 7 depends on claim 6 and benefits like arguments. Reconsideration of claim 7 is respectfully requested.

Claim 8 recites a system for analyzing design elements in a CAD tool design including:

(a) a configuration element generator for encoding information in a configuration command to generate a configuration element associated with at least one of the design elements;

(b) a sequencer coupled to the configuration element generator for tagging the configuration element with a sequence number;

(c) computer memory, coupled to the sequencer, for storing the configuration element; and

(d) a processor coupled to said computer memory, for applying, to said design element that is of interest, each stored said configuration element associated with said design element of interest, in an order indicated by the sequence number.

As argued above, Hunt does not disclose a system for analyzing design elements in a CAD tool design and does not disclose a configuration element generator for encoding information in a configuration command to generate a configuration element association with at least one of the design elements, as recited by element (a). Although Hunt in col. 18, line 61 through col. 19, line 42, discloses a compiler that reads the configuration statements stored within HDL files and converts them to intermediate files with markers that are processed to create a database pertaining to Dials, this is not equivalent to the configuration element generator of element (a). Since Hunt does not discloses element (a), Hunt cannot disclose a sequencer coupled to the configuration element generator as recited by element (b). Teaching away from sequential ordering, Hunt discloses that Dials are in initiated hierarchical order. In fact, Hunt would have no need of a sequencer and therefore makes no disclosure of a computer memory coupled to a sequencer as recited in element (c). Hunt makes no disclosure of a processor, coupled to said computer memory, for applying, to said design element that is of interest, each stored said configuration element associated with said design element of interest, in an order indicated by the sequence number, as recited by element (d). The processor of Hunt is used to initialize and to configure a data processing system at power-on or in response to a reboot. Hunt does not disclose a system for analyzing design elements.

For at least these reasons, Hunt cannot anticipate claim 8. Reconsideration of claim 8 is respectfully requested.

Claims 9 - 11 depend from claim 8 and benefit from like argument. These claims also have additional features that patentably distinguish over Hunt. For example, claim 9 recites that the configuration element generator includes a controller for generating the configuration element by selecting said configuration command from a configuration file. The system of Hunt does not include a configuration element generator and therefore cannot include a controller therein. Claim 10 recites that the controller stores the configuration element in a first list if the configuration element is a partial specifier, stores the configuration element in a second list if the configuration element is a complete specifier, evaluates each partial specifier in the first list to determine if the evaluated partial specifier matches the design element of interest, retrieves the configuration element into the third list if the evaluated partial specifier matches the particular configuration element, and retrieves, into the third list, each complete specifier in the second list that matches the particular configuration element. As argued above, Hunt does not disclose such lists.

For at least these reasons, Hunt cannot anticipate claims 9-11. Reconsideration of claims 9-11 is respectfully requested.

Claim 12 recites a system for analyzing design elements in a CAD tool design including:

(a) encoding means for encoding information in a configuration command to generate a configuration element associated with at least one of the design elements;

(b) sequencing means, coupled to said encoding means, for tagging the configuration element with a sequence number;

(c) storage means, coupled to said sequencing means, for storing the configuration element; and

(d) processing means, coupled to said sequencing means and to said storage means, for applying, to said design element that is of interest, each stored

said configuration element associated with said design element of interest, in an order indicated by the sequence number, to analyze the design.

As argued above, Hunt does not disclose or suggest a system for analyzing design elements in a CAD tool design. Hunt does not disclose or suggest generating configuration elements as recited by element (a) and does not disclose or suggest sequencing means for tagging the configuration element with a sequence number, as recited in element (b). As argued above, the Dials of Hunt are not equivalent to configuration elements of the '597 Application. Again, as argued above, Hunt does not disclose storage means couples to the sequencing means for storing the configuration elements. The configuration file and configuration database of Hunt are not coupled to a sequencing means as recited in element (c). Again, as argued above, Hunt does not disclose processing means that couples to the sequencing means and to the storage means as recited in element (d), at least for the reason that Hunt does not disclose sequencing means.

For at least these reasons, Hunt cannot anticipate claim 12. Reconsideration of claim 12 is respectfully requested.

Claim 13 depends on claim 12 and benefits from like argument.

Claim 14 recites a system for analyzing design elements in a CAD design including:

(a) a model generator for receiving design information from a design file to generate the CAD design;

(b) a storage unit coupled to the model generator for storing the CAD design;

(c) a configuration element generator for receiving configuration commands from a configuration file to generate a list of configuration elements associated with specific design elements of the CAD design; and

(d) an analysis engine coupled to the storage unit and to the configuration element generator for analyzing one of the design elements at a time using information in the list of configuration elements.

As argued above, Hunt does not disclose a system for analyzing design elements in a CAD design and does not disclose or suggest a configuration element generator as recited by element (c). Although Hunt discloses a model build tool 810, Fig. 8, model build tool 810 generates a simulation executable model 816 that when executed models the logic functions of the digital design. See Hunt col. 19, lines 9-17. The model of Hunt is therefore not equivalent to the CAD design of element (a) and the model build tool 810 of Hunt is not the same as the model generator recited in element (a). Further, Hunt does not disclose an analysis engine for analyzing one of the design elements at a time as recited by element (d).

For at least these reasons, Hunt cannot anticipate claim 14. Reconsideration of claim 14 is respectfully requested.

Claims 15 -17 depend from claim 14 and benefit from like argument. These claims also have additional features that patentably distinguish over Hunt. For example, claim 15 recites that the configuration element generator is coupled to the storage unit for storing the configuration elements to allow reuse of the configuration elements as determined by the analysis engine. Teaching away from claim 15, Hunt discloses that every Dial has a one-to-one mapping between each of its input values and a unique output value of the Dial. In other words, each input value has a unique output value. Therefore, Hunt cannot reuse the Dial. See, for example, Hunt col. 25 lines 24-28. Claim 16 recites that the list of configuration elements is discarded after said one of the design elements is analyzed. As argued above, the Hunt is silent about having a third list of configuration elements, and therefore cannot discard the list.

For at least these reasons, Hunt cannot anticipate claims 15-17. Reconsideration of claims 15-17 is respectfully requested.

Claim 18 recites a software product having instructions, stored on computer-readable media, wherein the instructions, when executed by a computer, perform steps for analyzing design elements in a CAD tool design, including:

(a) for each configuration command in a configuration file:

(b) instructions for encoding information in the configuration command to generate a configuration element;

(c) instructions for ordering the configuration element with a sequence number indicating the order in which the configuration command appeared in the configuration file; and

(d) instructions for storing the configuration element in computer memory; and

(e) for each said design element of interest:

(f) instructions for applying each of the configuration elements stored in said computer memory to the design element of interest in an order indicated by the sequence number to analyze the design.

Similar to arguments above, Hunt does not disclose a software product for analyzing design elements in a CAD design and does not disclose or suggest generating a configuration element as recited by element (b). Hunt does not order configuration elements based upon the order of the configuration command within the configuration file as recited by element (c). Hunt makes no disclosure or suggestion of applying each of the configuration elements to design elements of interest as recited by element (f).

For at least these reasons, Hunt cannot anticipate claim 18. Reconsideration of claim 18 is respectfully requested.

Claims 19 - 20 depend from claim 18 and benefit from like argument. These claims also have additional features that patentably distinguish over Hunt. For example, claim 19 recites storing the configuration element in a first list if the

configuration element is a partial specifier, storing the configuration element in a second list if the configuration element is a complete specifier, evaluating each partial specifier in the first list to determine if the evaluated partial specifier matches the design element of interest; retrieving the configuration element into a third list if the evaluated partial specifier matches the particular configuration element, and retrieving, into the third list, each complete specifier in the second list that matches the particular configuration element. As argued above, Hunt does not disclose or suggest storing configuration elements in first, second and third lists. Claim 20 recites discarding the third list from said computer memory after the configuration elements therein have been applied to the design element of interest. Again as argued above, Hunt make no disclosure of discarding a third list after applying configuration elements therein to the design element of interest.

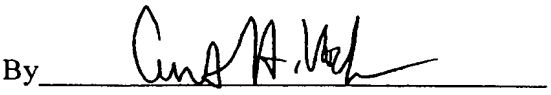
For at least these reasons, Hunt cannot anticipate claims 19 and 20. Reconsideration of claims 19 and 20 is respectfully requested.

CONCLUSION

Applicants have addressed all issues raised in the Office Action dated October 06, 2006, and respectfully solicit a Notice of Allowance for claims 1-20. Applicants believe no fees are currently due; however, if any fee is deemed necessary in connection with this Amendment and Response, please charge Deposit Account No. 08-2025.

Respectfully submitted,

Date: January 5, 2007

By 

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